

REMARKS

Favorable reconsideration of this application, in light of the following discussion, is respectfully requested.

Claims 1, 6-22, 27 and 31-43 are pending. Claims 1 and 22 are independent.

In the Official Action, claim 22 was objected to; and claims 1, 6-22, 27 and 31-43 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Otsuka (U.S. Patent Pub. No. 2003/0021593) and deCarmo (U.S. Patent No. 6,138,175).

The Office Action Summary indicates that claims 2-5, 23-26 and 28-30 are withdrawn from consideration. However, as apparently acknowledged in the detailed action, claims 2-5, 23-26 and 28-30 were cancelled via Applicant's amendment of June 11, 2008. Applicant requests further actions reflect this status.

Applicant traverses the objection to claim 22. Claim 22 purposely uses the term "operably," which is term common to U.S. claim drafting practice.

Briefly recapitulating, claim 1 is directed to

A method for controlling a playback operation in a media player device, the method comprising:

defining a plurality of operating states based on coexisting operation modes of the media player device, wherein in a first operation mode the device is configured to reproduce audio/video (A/V) data recorded on a recording medium and in a second operation mode the device is configured to process additional data recorded on a recording medium or provided from a remote content provider; and

operating the device in at least one of the plurality of operating states, in response to user interfacing with the device to select said at least one of the plurality of operating states,

wherein the plurality of operating states comprise at least one of N operating states based on said first and second operational modes,

the first operational mode has X playback states associated with reproducing A/V data recorded on the recording medium,

the second operational mode has Y operation states associated with processing additional data recorded on a recording medium or provided by the remote content provider, where $N = X \times Y$.

Independent claim 22 recites, *inter alia*,

a controller operably coupled to the playback engine and the enhanced navigation engine and configured to control the reproducing of the A/V data and/or additional data, wherein

to control the reproducing of the A/V data and/or additional data, wherein

the controller is further configured to control a plurality of operating states defined based on coexisting operation modes of the playback engine and the enhanced navigation engine,

the controller is configured to control the playback engine to reproduce audio/video (A/V) data recorded on a recording medium in a first operation mode and control the enhanced navigation engine to process additional data readout from the recording medium or downloaded from a remote content provider in a first operation mode, in response to user interaction,

the plurality of operating states comprise at least one of N operating states based on said first and second operational modes,

the first operational mode has X playback states associated with reproducing A/V data recorded on the recording medium, and

the second operational mode has Y operation states associated with processing additional data recorded on the recording medium or provided by the remote content provider, where $N = X \times Y$.

Otsuka describes an optical disc player 100 that can operate in at least two modes: a video playback mode and a user agent mode. In video playback mode, the optical disc player 100 functions to access and display video content stored on the local optical disc 116, such as would a standard DVD player. In video playback mode, the video menu displayed on displaying device (e.g. television, computer monitor) is used to control the playback of the video content. In user

agent mode, the optical disc player is configured to run a user agent program (e.g. a browser) to allow a user to access website documents on a network or stored in the local optical disc 116, and perform various functions associated with the website document. In the user agent mode, the video content stored on the local optical disc 116 may be shown in a framed window within the user agent window. In user agent mode, the user agent menu is used to control the playback of the video content.

As acknowledged in the Official Action, Otsuka does not disclose or suggest Applicant's claimed plurality of operating states comprise at least one of N operating states based on said first and second operational modes, *where* $N = X \times Y$, where the first operational mode has X playback states associated with reproducing A/V data recorded on the recording medium, and the second operational mode has Y operation states associated with processing additional data recorded on the recording medium or provided by the remote content provider. To cure this deficiency, the Official Action applies deCarmo.

DeCarmo describes a DVD navigation system having an optimizer that optimizes navigational commands to reduce the amount of memory required to cache the commands. The optimizer re-orders command sequences before they are interpreted in order to permit their execution in parallel. After re-ordering the commands, the optimizer routes commands to either a primary or secondary execution unit for parallel execution. Each execution unit executes navigational commands and, in an object-oriented environment, each of the execution units according to the illustrative embodiment would be implemented as a separate object having its own state.

The optimizer 214 of deCarmo includes a combination unit 218 and a parallelization engine 220. Operation of the combination engine 218 is set forth in flow chart of FIG. 4. In step 402, the combination engine 218 retrieves a command. Then the combination engine retrieves the command from navigation engine 208 as the commands are read from the disc 202. From step 402, the process proceeds to step 404, where the combination engine determines whether the command just retrieved is a Set System command such as SetSTN, SetNVTMR, etc., which sets the internal system parameters of the player 200. If the command is a SetSystem command, the process proceeds to step 406 where the next command is retrieved and from there to step 408 where this "next" command is examined to determine whether it is a LINK command, such as, LINKPGCN, LINKPTTN, etc. If the command is a LINK command, the process proceeds to step 410 where the two commands are combined into one SetSystemLink command. From step 410, the process proceeds to step 412, where the combined command is stored in the storage unit 216.

However, contrary to the Official Action, deCarmo does not cure the deficiencies of Otsuka. To sustain the final rejection, the Official Action points to the discussion of polymorphism in deCarmo. As noted by deCarmo, polymorphism is a concept which allows objects and functions which have the same overall format, but which work with different data, to function differently in order to produce consistent results. For example, an addition function may be defined as variable A plus variable B ($A+B$) and this same format can be used whether the A and B are numbers, characters or dollars and cents. However, the actual program code which performs the addition may differ widely depending on the type of variables that comprise A and B. Polymorphism allows three separate function definitions to be written, one for each type of

variable (numbers, characters and dollars). After the functions have been defined, a program can later refer to the addition function by its common format (A+B) and, at runtime, the program will determine which of the three functions is actually called by examining the variable types. Polymorphism allows similar functions which produce analogous results to be "grouped" in the program source code to produce a more logical and clear program flow.

One skilled in the art would recognize that polymorphism is a software coding technique whereby a software object can be constructed to behave like an object of another class. The algebraic expressions by deCarmo (e.g., common format (A+B)) are not related to Applicant's claimed algebraic expression $N = X \times Y$.

In summary, as acknowledged by the Official Action, Otsuka does not disclose or suggest Applicant's claimed plurality of operating states. Accordingly, Otsuka does not disclose or suggest any of Applicant's features relating to plural operating states. Otsuka and DeCarmo both fail to disclose or suggest N (operating states) = [X playback states *associated with reproducing A/V data recorded on the recording medium*] x [Y operation states *associated with processing additional data*]. That is, while there may be multiple operating states in deCarmo, there is no relationship between the operating states as recited in Applicant's independent claims. Finally, the conventional art of software polymorphism described by deCarmo is not relevant to Applicant's claimed subject matter.

As none of the cited art, individually or in combination, discloses or suggests at least the above-noted features of independent claims 1 and 22, Applicant submits the inventions defined

by claims 1 and 22, and all claims depending therefrom, are not rendered obvious by the asserted references for at least the reasons stated above.¹

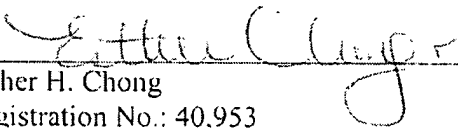
Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Michael E. Monaco, Reg. No. 52,041 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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¹ MPEP § 2142 "...the prior art reference (or references when combined) must teach or suggest all the claim limitations.